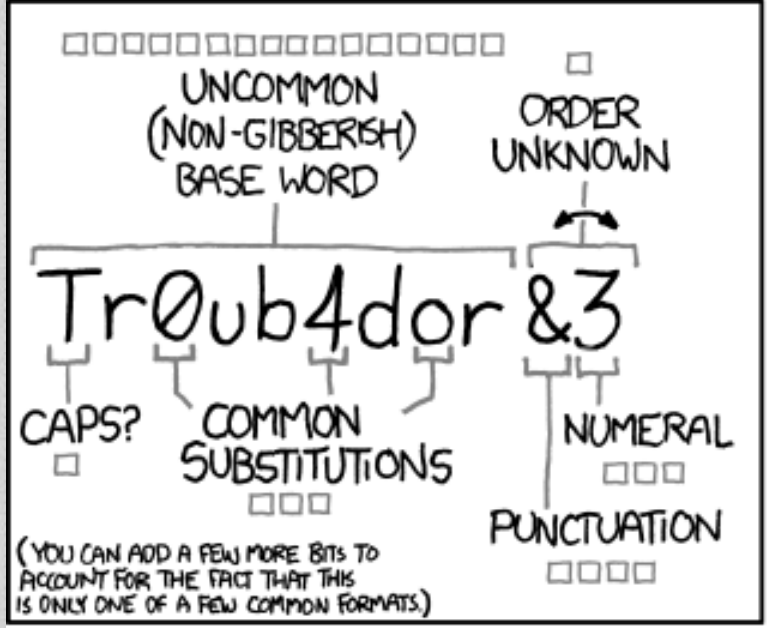
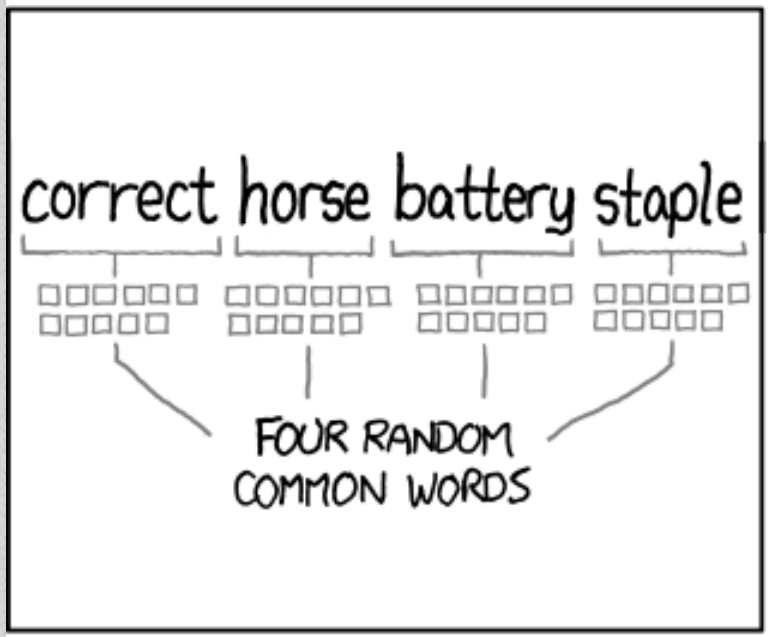
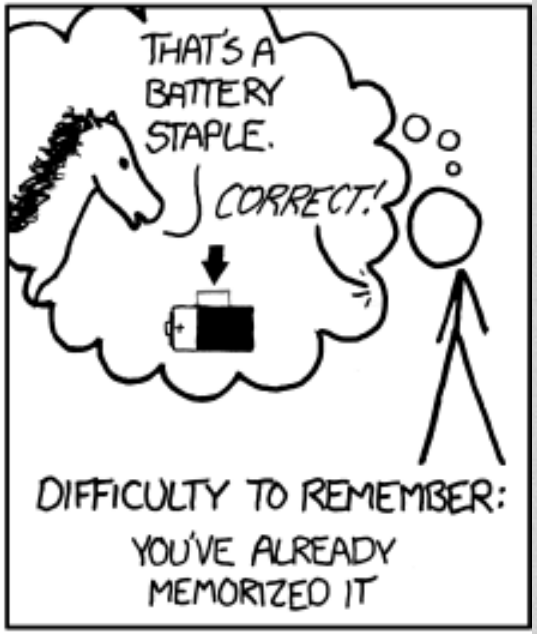









THROUGH 20 YEARS OF EFFORT, WE'VE SUCCESSFULLY TRAINED EVERYONE TO USE PASSWORDS THAT ARE HARD FOR HUMANS TO REMEMBER, BUT EASY FOR COMPUTERS TO GUESS.

# Passwords

*Diceware* hardware random number generator using dice

$$H = log_2 N^L = L \log_2 N = L \frac{\log N}{\log 2}$$

http://world.std.com/~reinhold/diceware.html
Lets make a password!

*Keepass* http://keepass.info/ Password manager

# Main Wallets

## Desktop wallets

Desktop wallets are installed on your computer. They give you complete control over your wallet. You are responsible for protecting your money and doing backups.

Bitcoin-Qt

MultiBit

Armory

Electrum

## Mobile wallets

Mobile wallets allow you to bring Bitcoin with you in your pocket. You can exchange bitcoins easily and pay in physical stores by scanning a QR code or using NFC "tap to pay".

Bitcoin Wallet

Mycelium Wallet

Blockchain .info

## Web wallets

Web wallets allow you to use Bitcoin on any browser or mobile and often offer additional services. However, you must choose your web wallet with care as they host your bitcoins.

Blockchain .info

Coinbase

Coinkite

# Wallet Grid

| Wallet | Type | Width | Keys | Difficulty |
|---|---|---|---|---|
| Bitcoin QT | Desktop | Thick | Local | Medium/Advanced |
| Multibit | Desktop | Thin | Local | Easy |
| Armory | Desktop | Thick | Local | Advanced |
| Electrum | Desktop | Thin | Local | Easy |
| Bitcoin – Android | Android | Thin | Local | Easy |
| Mycelium | Android | Thin | Local | Easy |
| Blockchain | Android/Iphone/Online | Thin | Non Local | Easy |
| Coinbase | Online | Thin | Non Local | Easy |
| Coinkite | Online | Thin | Non Local | ? |

# Hardware, Offline, Paper & Brain Wallets

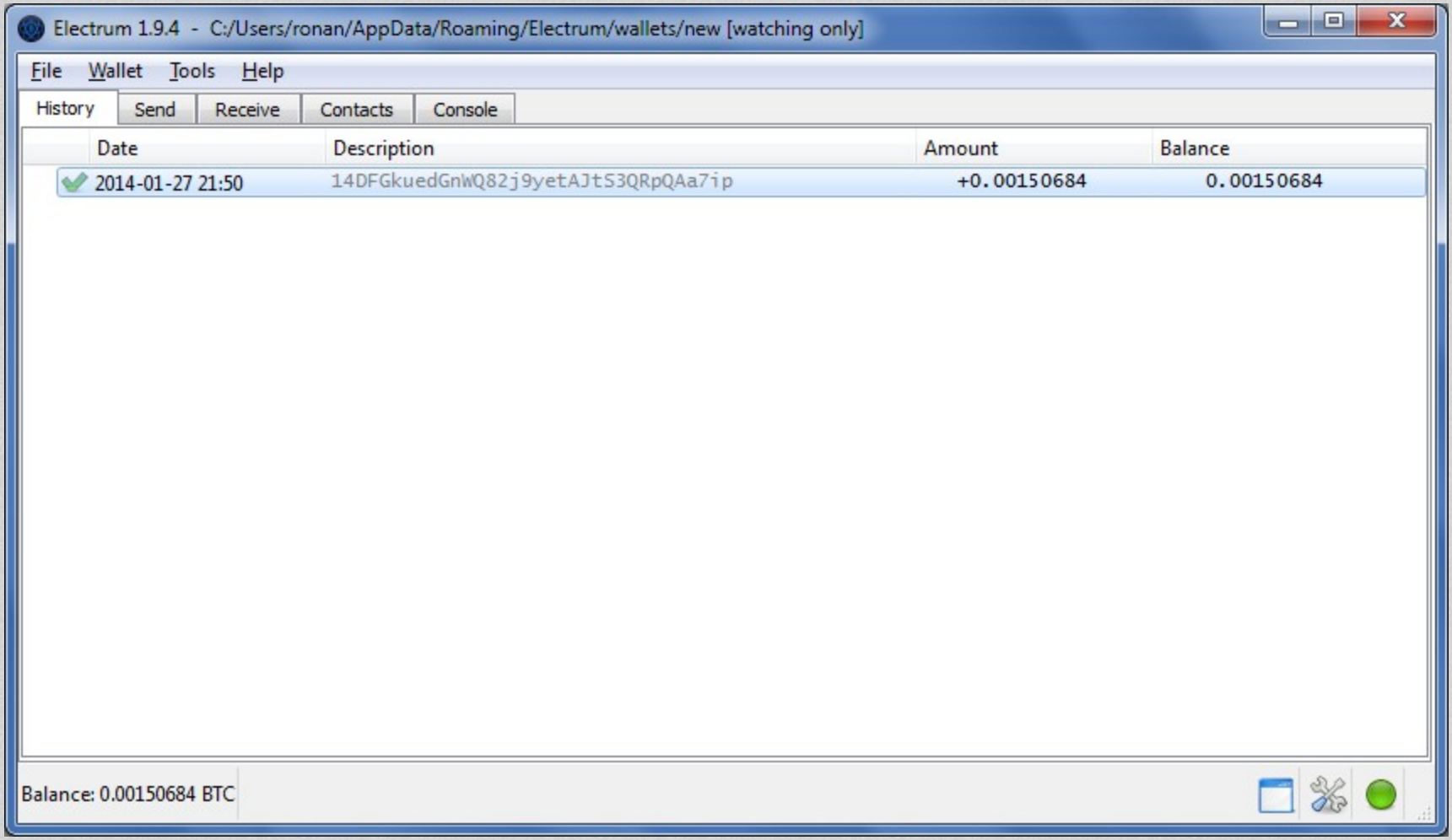
| Type | Storage | Example | Comments |
|---|---|---|---|
| Hardware | Keys offline on hardware device | Trezor | Expensive currently |
| Offline | Wallet file on offline computer | Electrum | Free |
| Paper | Wallet Seed written on paper | Electrum | Free |
| Brain Wallet | Memorise Seed | Electrum | Free |

Key point here is to learn about these in your spare time. Do not experiment with any coins to begin with as mistakes happen. When you are comfortable you know what you are doing then proceed

Have a backup strategy!  Eg say you have your coins on an offline computer and then it stops working! Where is your backup?  Not a smart move and you will loose your coins. BE CONFIDENT BEFORE YOU STORE COINS USING ABOVE STRATEGIES

Next Electrum offline transaction

# Offline Transaction Demo



# Other

BIPS : https://en.bitcoin.it/wiki/Bitcoin_Improvement_Proposals

Cryptography : Branch of mathematics concerned with secure communication. Certain cryptographic functions and signatures assemble to secure the Bitcoin network

# Where to buy Bitcoin?

| Name | Type | Country | Comment |
|---|---|---|---|
| Bitstamp | Online Exchange | Slovenia | Great Service |
| MtGox | Online Exchange | Japan | Liquid but slow withdrawals |
| BTC-e | Online exchange | Bulgaria | High Banking fees |
| Localbitcoins | P2P exchange | Global | Variable |
| Eircoin | Instant Bitcoin | Ireland | Instant |

*Exchanges are venues for matching buyers and sellers. You must deposit a balance with a provider to interact

# Bitcoin Trading

- Buying and then selling at a profit is fun  The reverse is not. Bitcoin trading is high risk and not advised but lets look at an example

Example :
Day1: Buy 1 Bitcoin @ 90 USD
Day2: Sell 1 Bitcoin @ 100 USD
You now have 100USD in cash= 90 original +10 profit
If you trade a lot consider a LIFO or FIFO approach to keep track of profits

# Keeping Current, Getting Involved & Discussion

- http://bitcoincharts.com/ : charts & tools
- http://blockchain.info/ : charts & tools
- http://www.coindesk.com/ : news
- http://www.coinion.com/ : spoof news
- https://bitcointalk.org/ : user forum
- http://www.reddit.com/r/Bitcoin/ : reddit bitcoin

# Bitcoin Development

- http://bitcoin.org/en/development

You can get involved, contribute, write your own BIP, develop lesser used parts of Bitcoin, start your own business, accept Bitcoin as payment in daily life and/or evangelise